

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (currently amended) A multi-volume disk array management method for use on a multi-disk storage unit having a number of disks for the purpose of allowing the multi-disk storage unit to provide at least two logical volumes for storing data in the logical volumes with at least two levels of fault tolerance;

the multi-volume disk array management method comprising:

(1) receiving user-specified settings related to the management of the overall storage space of the multi-disk storage unit;

~~(1)~~(2) logically dividing the storage space of each of the disks in the multi-disk storage unit into a number of partitions based on the received user-specified settings;

~~(2)~~ (3) organizing at last two selected subgroups of partitions in the disks of the multi-disk storage unit into at least two logical volumes based on the received user-specified settings; and

~~(3)~~ (4) setting the storage property of each of the logical volumes in the multi-disk storage unit to a user-specified level of fault tolerance based on the received user-specified settings.

Claim 2. (original) The multi-volume disk array management method of claim 1, wherein the multi-disk storage unit is a RAID-compliant storage unit.

Claim 3. (original) The multi-volume disk array management method of claim 1, wherein in said step (1), Linux's FDISK disk management utility is utilized to logically divide the storage space of each of the disks in the multi-disk storage unit into a number of partitions.

Claim 4. (original) The multi-volume disk array management method of claim 1, wherein in said step (1), all the partitions are set to be equal in size.

Claim 5. (original) The multi-volume disk array management method of claim 2, wherein in said step (3), each user-specified level of fault tolerance is a RAID-compliant level of fault tolerance.

Claim 6. (original) The multi-volume disk array management system for use with a multi-disk storage unit having a number of disks for the purpose of allowing the multi-disk storage unit to provide at least two logical volumes for storing data in the logical volumes with at least two levels of fault tolerance;

the multi-volume disk array management system comprising:

a user interface for receiving user-specified settings related to the management of the overall storage space of the multi-disk storage unit;

a storage-space partitioning module, which is capable of logically dividing the storage space of each of the disks in the multi-disk storage unit into a number of partitions based on the user-specified settings from the user interface;

a logical-volume organizing module, which is capable of organizing at least two selected subgroups of partitions in the disks of the multi-disk storage unit into at least two logical volumes based on the user-specified settings from the user interface; and

a storage-property setting module, which is capable of setting the storage property of each of the logical volumes in the multi-disk storage unit to a user-specified level of fault tolerance based on the user-specified settings from the user interface.

Claim 7. (original) A multi-volume disk array management system of claim 6, wherein the multi-disk storage unit is a RAID-compliant storage unit.

Claim 8. (original) The multi-volume disk array management system of claim 6, wherein the storage space partitioning module is Linux's FDISK disk management utility.

Claim 9. (original) The multi-volume disk array management system of claim 6, wherein the partitions created by the storage-space partitioning module are all equal in size.

Claim 10. (original) The multi-volume disk array management system of claim 7, wherein the user-specified level of fault tolerance is based on the RAID-compliant levels of fault tolerance.